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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/730,349

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Bharath Vasudevan

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EXAMINER

MEHRMANESH, ELMIRA

ART UNIT

PAPER NUMBER

2113

NOTIFICATION DATE

DELIVERY MODE

06/25/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

debbie.allen@bakerbotts.com

Office Action Summary	Application No. 10/730,349	Applicant(s) VASUDEVAN ET AL.	
	Examiner Elmira Mehrmanesh	Art Unit 2113	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 April 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This action is in response to an amendment filed on April 7, 2009 for the application of Vasudevan et al., for a "Transaction transfer during a failover of a cluster controller" filed December 8, 2003.

Claims 1-20 are pending in the application.

Claims 1, 7, and 14 have been amended.

Claims 1-20 are rejected under 35 USC § 103.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aronoff (U.S. PG PUB No. 20020129146) in view of Baba (U.S. PG PUB No. 20030237018).

As per claim 1, Aronoff discloses a method for failover in a cluster having two or more servers, the two or more servers operative with each other by a heartbeat mechanism ([0043]) comprising:

detecting a failure of a first server of the two or more servers ([0043]);

transferring a transaction queue from the first server to a second server of the two or more servers after detecting the failure of the first server ([0034], wherein Aronoff discloses “...*the secondary connection manager 150 begins forwarding data packets from the client 105 to the secondary DBMS 155 to be executed against the data files 130.*”) and ([0046]); and

servicing the transactions of the transaction queue of the first server by the second server ([0034], [0046]);

Aronoff fails to explicitly disclose a shared storage device.

Baba teaches:

copying, at a predetermined time interval, a transaction queue from a first server ([0088]) of the two or more servers to a shared storage device ([0053]), wherein the shared storage device is communicatively coupled to at least two of the two or more servers ([0053], [0090]).

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It would have been obvious to one of ordinary skill in the art at the time of the invention to use the server takeover system of Baba in combination with the cluster fail-over system of Aronoff et al. to provide a highly available system.

One of ordinary skill in the art at the time of the invention would have been motivated to make the combination because both inventions disclose a method and system for a failover (Aronoff, [0043]) and (Baba, [0045]). Aronoff discloses transferring transactions from one server to another via a secondary connection manager (Fig. 1). Baba discloses transferring transactions by a shared disk ([0053]).

As per claim 2, Aronoff discloses detecting a failure via the heartbeat mechanism ([0034]).

As per claim 3, Aronoff discloses the failure is an unstable application ([0033]).

As per claim 4, Aronoff discloses the failure is a data path ([0033]).

As per claim 5, Aronoff discloses forwarding the transaction queue from the first server to the second server via the heartbeat mechanism ([0046]).

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As per claim 6, Aronoff discloses forwarding the transaction queue from the first server to the second server via a network of the cluster ([0034], [0046]).

As per claim 7, Aronoff discloses a method for failover of a sever in a cluster having two or more servers, the two or more servers operative with each other by a heartbeat mechanism ([0043]), comprising:

detecting a failure of a first server of the two or more servers ([0043]);
transferring a transaction queue from the first server to a second server of the two or more servers after detecting the failure of the first server ([0034], wherein Aronoff discloses “...*the secondary connection manager 150 begins forwarding data packets from the client 105 to the secondary DBMS 155 to be executed against the data files 130.*”) and ([0046]); and
servicing the transactions of the transaction queue of the first server by the second server ([0034], [0046]);

Aronoff fails to explicitly disclose a shared storage device.

Baba teaches:

copying a transaction queue from a first of the two or more servers ([0088]) to a shared storage device ([0053], [0090]).

As per claim 8, Aronoff discloses detecting a failure via the heartbeat mechanism ([0034]).

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As per claim 9, Aronoff discloses the failure is an unstable application ([0033]).

As per claim 10, Aronoff discloses the failure is a data path ([0033]).

As per claim 11, Aronoff discloses forwarding the transaction queue from the first server to the second server via a network of the cluster ([0034], [0046]).

As per claim 12, Aronoff discloses servicing the transactions of the transaction queue of the first server by the second server occurs without waiting until the transactions timeout ([0043]).

As per claim 13, Aronoff discloses servicing the transactions of the transaction queue of the first server by the second server occurs without waiting until the transactions timeout ([0043]).

As per claim 14, Aronoff discloses a method for failover in a cluster having two or more servers, the two or more servers operative with each other by a heartbeat mechanism ([0043]) comprising:

detecting a failure of a first server of the two or more servers ([0043]);

transferring a transaction queue from the first server to a second server of the two or more servers after detecting the failure of the first server ([0034], wherein Aronoff discloses “...the secondary connection manager 150 begins

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forwarding data packets from the client 105 to the secondary DBMS 155 to be executed against the data files 130.”) and ([0046]); and

servicing the transactions of the transaction queue of the first server by the second server ([0034], [0046]);

Aronoff fails to explicitly disclose a shared storage device.

Baba teaches:

copying, at a predetermined time interval, a transaction queue from a first server ([0088]) of the two or more servers to a shared storage device ([0053]), wherein the shared storage device is communicatively coupled to at least two of the two or more servers ([0053], [0090]).

As per claim 15, Aronoff discloses transferring a transaction queue from the first server to the remaining servers of the two or more servers comprises transferring one or more selected portions of the transaction queue to one or more of the remaining servers ([0045], [0046]).

As per claim 16, Aronoff discloses detecting a failure via the heartbeat mechanism ([0034]).

As per claim 17, Aronoff discloses the failure is an unstable application ([0033]).

As per claim 18, Aronoff discloses the failure is a data path ([0033]).

As per claim 19, Aronoff discloses forwarding the transaction queue from the first server to the remaining servers of the two or more servers via the heartbeat mechanism ([0046]).

As per claim 20, Aronoff discloses servicing the transactions of the transaction queue of the first server by the second server occurs without waiting until the transactions timeout ([0043]).

Response to Arguments

Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elmira Mehrmanesh whose telephone number is (571) 272-5531. The examiner can normally be reached on 8-5 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert W. Beausoliel can be reached on (571) 272-3645. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public

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PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Robert W. Beausoliel, Jr./
Supervisory Patent Examiner, Art Unit 2113